Disaster Assistance Employee (DAE)
Position Description for Joint Field Office (JFO) assignment
Hazard Mitigation Engineer

Major Duties And Responsibilities:

- Provides engineering support to the Hazards and Performance Analysis (HPA) Group by conducting engineering studies, analyses, and technical report development
- Reviews, evaluates, and coordinates disaster-specific information, including engineering and analyses of disaster-impacted infrastructure and residences.
- Supports Hazard Mitigation Grant Program (HMGP)/Planning in engineering design development, or the review of engineering in the development of hazard mitigation projects
- Contributes to, or be primarily assigned to evaluate and write reports from the engineering analysis of disaster impacts/failures
- Coordinates with Hazard Mitigation (HM) GIS Specialist in data gathering and analysis for mapping and reports; inspects and evaluates damaged infrastructure and residences; conducts preliminary damage assessments (PDAs)
- Assists with monitoring of Hazard Mitigation Technical Assistance Project (HMTAP) and Technical Assistance Research Contract (TARC) task orders, Interagency Agreements, and Mission Assignments
- Conducts benefit-cost analyses in support of HMGP and Public Assistance projects of the Infrastructure Branch, if appropriate.
- Coordinates with HM Infrastructure Support Team on disaster-specific mitigation issues
- When appropriate, provides support for Infrastructure Branch to assist with identification of mitigation opportunities

Duties by Specialty Category – please address specific experience in any of the following:

Building Sciences/Engineering (Civil):

- Conducts building performance assessments, including the evaluation of engineering and design of various building types
- Conducts structural failure analyses and develops technical reports incorporating appropriate engineering methodologies and mitigation recommendations for reconstruction
- Evaluates existing building codes in context of a disaster

Engineering (General):

This Specialty Category encompasses engineering disciplines that are not listed separately. It could include but not be limited to the following engineering disciplines: Mechanical, Electrical, Geotechnical, Sanitary, Transportation, etc.

- In addition to above duties and responsibilities, evaluates any one of a variety of engineering systems and facilities (e.g., mechanical, electrical, transportation, etc.)
- Develops engineering analyses of performance and/or failure and provides recommendations for appropriate engineering methodologies and mitigation

Hydraulic/Hydrology (H/H) Engineer:

- In addition to above major duties and responsibilities, performs analyses to quantify and evaluate flood impacts including flood flow-frequency and surface runoff
- Conducts flood analyses and hydraulic studies, as needed
- Conducts other post-flood data verification analyses as needed
- Develops benefit-cost analyses for flood control projects

Structural Engineer:

- Thoroughly understands structural design principles, particularly public structures
- Performs structural analysis and evaluation of disaster-impacted infrastructure for structural failure and recommendations for hazard mitigation and reconstruction

Knowledge, Skills, Abilities and Experience Required:

- Expert knowledge of engineering principles in relation to hazard mitigation
- Working knowledge of the engineering discipline or the disaster-appropriate specialty
- Working knowledge of performing the appropriate engineering analyses, and reporting the results both written and verbally
- Demonstrated experience in using GIS, and HAZUS or other loss estimation methodologies
- Basic knowledge of field surveying techniques
- Basic knowledge of other Federal and State agencies' areas of responsibility to enable collaboration of technical analyses and development of mitigation opportunities
- Demonstrated experience in project development
- Project management skills
- Strong written and verbal communication skills
- Proficient computer skills including Microsoft Office® programs
- Ability to read and interpret hazard analysis maps, Flood Insurance Rate Maps, and Flood Insurance Studies, topographic maps, seismic maps, etc., as required by discipline
- Ability to work collaboratively in multi-disciplinary teams.
- Ability to work under pressure to accomplish multiple tasks, under short timelines in a disaster environment.
- Excellent customer service skills